



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

**OIL AND GAS DOCKET NO. 01-0274287**

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**THE APPLICATION OF APEX ENVIRONMENTAL TEXAS, LLC PURSUANT TO 16 TEXAS ADMINISTRATIVE CODE §3.9 FOR A COMMERCIAL DISPOSAL PERMIT TO DISPOSE OF OIL AND GAS WASTE BY INJECTION INTO A POROUS FORMATION NOT PRODUCTIVE OF OIL AND GAS FOR THE APEX ENVIRONMENTAL MILLET LEASE, WELL NO. 1, PEARSALL EAST (OLMOS) FIELD, LA SALLE COUNTY, TEXAS**

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**HEARD BY:** Brian Fancher, P.G. - Technical Examiner  
Michael Crnich - Legal Examiner

**APPEARANCES:**

**REPRESENTING:**

**APPLICANT:**

|                     |                               |
|---------------------|-------------------------------|
| Derek McDonald      | Apex Environmental Texas, LLC |
| Amber MacIver       |                               |
| Jeff Hughes, P.E.   |                               |
| Ryan Mersmann, P.G. |                               |
| Oscar Tomasich      |                               |
| Oscar Lopez         |                               |
| Ramiro Rodriguez    |                               |

**PROTESTANTS:**

|                 |      |
|-----------------|------|
| Lidia Rodriguez | Self |
| R.H. Rodriguez  | Self |
| Hector J. Ortiz | Self |

**PROCEDURAL HISTORY**

|                               |                   |
|-------------------------------|-------------------|
| Application Filed:            | November 09, 2011 |
| Protest Received:             | November 28, 2011 |
| Request for Hearing:          | January 10, 2012  |
| Notice of Hearing:            | January 26, 2012  |
| Hearing Held:                 | April 02, 2012    |
| Transcript Received:          | April 16, 2012    |
| Proposal for Decision Issued: | December 20, 2012 |

**EXAMINERS' REPORT AND PROPOSAL FOR DECISION**  
**STATEMENT OF THE CASE**

On March 09, 2012, the subject docket was called to order, appearances were noted, and the applicant's request to reset the hearing to a future date was granted. The hearing was reconvened on April 02, 2012.

Apex Environmental Texas, LLC ("Apex") requests commercial disposal authority, pursuant to Statewide Rule 9, for its Apex Environmental Millett Lease, Well No. 1, Pearsall East (Olmos) Field located in the J. Poitevent Survey, A-632, La Salle County, Texas.

Notice of the subject application was published in the *Frio-Nueces Current*, a newspaper of general circulation in La Salle County, on September 08, 2011. Notice of the application was sent to the La Salle County Clerk and to the surface owners of each tract which adjoins the disposal tract on November 04, 2011. There were no operators identified within a half-mile radius of the subject well's proposed location. This application is protested by multiple adjacent surface owners.

The examiners take Official Notice of the Railroad Commission's public record relating to well locations placed on the Commission's Geographic Information Systems ("GIS") database, as well as public information relating to the current Organization Report filed by Apex Environmental Texas, LLC.

**DISCUSSION OF THE EVIDENCE**

**Applicant's Evidence**

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Apex seeks commercial disposal authority for its proposed Apex Environmental Millett ("AEM") Lease, Well No. 1. The subject well's proposed location is positioned on a 180-acre tract that is adjacent to Interstate Highway 35 ("IH-35"), approximately ten miles north of Cotulla, Texas (Tr., P. 36, L. 6-10).

The AEM Lease, Well No. 1, has yet to be drilled. Apex seeks to dispose of produced salt water and oil and gas wastes in the Edwards formation from 8,550 feet to 9,550 feet below ground surface. Apex testified it seeks a maximum daily injection volume of 10,000 barrels of fluid per day and estimates the daily average of fluids disposed to be 5,000 barrels per day (Tr., P. 43, L. 22-25 & P. 44, L. 7-10). Apex submitted a Commission Form W-14<sup>1</sup> that indicates the proposed disposal well will be completed from the surface to 2,900 feet below ground surface with 10 3/4" surface casing, with cement circulated from the surface casing shoe to the ground surface.

Beyond that, Apex proposes 7" long-string casing be set at 9,550 feet back to surface with cement circulated from the 7" casing shoe to approximately 5,000 feet. Additionally, Apex proposes

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<sup>1</sup> See attached Apex Exhibit No. 2

a cement deviation ("DV") tool at 3,100 feet, with cement circulated back to surface. Apex proposes 4 ½" tubing and packer set at the top of the subject well's proposed injection interval. Finally, Apex proposes to set a cast-iron bridge plug at 9,450 feet with twenty feet of cement placed above it.<sup>2</sup>

The Commission's Groundwater Advisory Unit ("GAU"), formerly the Texas Commission on Environmental Quality ("TCEQ"), concluded that the base of usable quality water ("BUQW") occurs at 2,700 feet below ground surface at the subject well's proposed location. Moreover, the letter indicates that the water encountered from 2,000 feet to 2,350 feet contains superior quality water which must be isolated from water in underlying and overlying strata. Additionally, the base of the usable source of drinking water ("USDW") occurs at 4,100 feet.

Apex submitted quarter-mile and half-mile areas of review ("AOR") that surround the proposed disposal well location. No wells were identified within the AORs (Tr., P. 61, L. 8-21). Apex testified that a dry hole, the Kirkwood & Morgan, Inc, Will Nagy Lease, Well No. 1 (Nagy No. 1), is located 0.65 miles and was plugged and abandoned on March 19, 1952. Apex submitted a plugging record for the Nagy No. 1 that indicates the Nagy No. 1 was drilled to a total depth of 4,255 feet.

Apex testified that it attempted to identify the location of water wells, with respect to the subject well's proposed location, based on information it obtained through the Texas Water Development Board website. Apex testified no water wells are located within a half-mile radius of the subject well's location (Tr., P. 62, L. 13-21).

Apex testified the nearest hydrocarbon productive well from the subject well is the Leede Oil & Gas, Inc., Ledwig Lease, Well No. 3 (API No. 42-283-31367), situated approximately one and one half to two miles northeast of the subject well. A Commission Form W-2 (Completion Report) for the Ledwig No. 3, dated December 17, 1990, indicates the Legwig No. 3 is completed in the Pearsall (Austin Chalk) Field and produces through perforations from 7,400 feet to 11,216 feet, measured depth.

Apex testified that it seeks an injection interval based on the correlative interval from 8,500 feet to 9,550 feet, as seen in the log for the Hurd Enterprises, Ltd, Kone Estate Lease, Well No. B-1 ("KEL B-1") (API No. 42-127-33353). Apex testified the KEL B-1 is located approximately ten miles west of the proposed disposal well location (Tr. P. 72, L. 18-24).

Apex testified that it determined its proposed injection interval, as observed from 8,500 feet to 9,550 feet in the KEL B-1, is appropriate for the subject well's proposed location. Apex testified it reviewed studies relating to the area of the subject well's location, as well as observing the well log for the KEL B-1 to verify the subject well's proposed schematic coincided with its proposed injection interval (Tr., P. 73, L. 1-6). No other petrophysical data or sub-surface mapping was submitted on behalf of Apex to support its requested correlative injection interval. Additionally, no evidence was submitted supporting confinement at the base of the proposed injection interval.

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<sup>2</sup> See attached Apex Exhibit No. 3 - Wellbore Diagram

Apex testified that the drilling and use of the subject well for the injection of disposal fluids will not adversely impact any usable water, or any oil, gas, or geothermal resources (Tr., P. 64, L. 1-9). Additionally, Apex testified the subject application contains all the information required by 16 TAC §3.9 (Tr., P. 64, L. 10-17).

Apex testified it believes that the correlative interval it proposes as its injection interval will properly confine injected fluids to the injection interval. Apex testified the top of its proposed injection interval is capped by the Georgetown formation, a semi-confining layer, and then the Del Rio formation (Tr., P. 77, L. 3-11).

At the hearing, Apex testified that La Salle County is centrally located to service the Eagle Ford operations that are growing exponentially in the area (Tr., P. 37, L. 15-19). No physical evidence or testimony was presented by Apex to indicate the number of wells in the immediate area surrounding the proposed subject well, or if any of the surrounding wells were completed in a Commission designated oil or gas field producing from the Eagle Ford formation.

Finally, Apex submitted a copy of its current Commission Form P-5 (Organization Report). Apex is a limited liability corporation. Commission public records currently reflect that Apex does not have financial assurance filed with the Commission.

### **Protestants' Evidence**

#### **R.H & Lidia Rodriguez**

Mr. and Mrs. Rodriguez are adjacent surface owners to the tract in which the subject well's proposed location is placed. Mr. Rodriguez testified he and his wife protest the subject application due to the proximity of the subject well's proposed location with respect to his property. Moreover, Mr. Rodriguez testified he is concerned with the consequential road traffic, due to the operations of the subject well. Also, Mr. Rodriguez testified he and his wife are concerned with the potential odor that may accompany the operation of the subject well. Finally, Mr. Rodriguez testified he is concerned his water supply may be potentially affected from the disposal operations (Tr., P. 11, L. 6-19).

#### **Hector Ortiz**

Mr. Ortiz is an adjacent surface owner to the tract comprising the location of the proposed subject well. Mr. Ortiz testified there are two water wells located on his property that are within 1/4-mile from the subject well location. Mr. Ortiz testified he is concerned with the potential pollution to his water wells, as a consequence to the disposal operation of the subject well. Additionally, Mr. Ortiz testified he is concerned about the potential adverse affect to his property value as a result of the subject well's approval for disposal. No physical evidence was submitted on behalf of Mr. Ortiz identifying the location and depth of the two water wells on his property.

**EXAMINERS' OPINION AND DISCUSSION**

Based on the testimony and physical evidence submitted at the hearing, the examiners recommend the application for the proposed Apex Environmental Millett ("AEM") Lease, Well No. 1 be denied. The examiners conclude the applicant has failed to meet its burden of proof in establishing that fluids disposed in the proposed injection interval will be confined to the injection interval.

First, the examiners note that 16 Texas Administrative Code ("TAC") §3.9 governs the permitting, use, and maintenance of a disposal well under the jurisdiction of the Railroad Commission. Specifically, 16 TAC §3.9(1) provides oil and gas operators the following requirement:

"Every applicant who proposes to dispose of saltwater or other oil and gas waste into a formation not productive of oil, gas, or geothermal resources must obtain a permit from the Commission authorizing the disposal in accordance with this section"

Under the provisions of 16 TAC §3.9, an operator is required to demonstrate that fluids will be confined to the injection interval that is requested. In the subject application, Apex has failed to meet this burden.

Apex testified it seeks an injection interval from 8,550 feet to 9,550 feet, as shown on the log of the Hurd Enterprises, Ltd, Kone Estate Lease, Well No. B-1 ("KEL B-1") (API No. 42-127-33353). Apex testified the KEL B-1 is located approximately ten miles west of the proposed disposal well location (Tr. P. 72, L. 18-24). No where in its application did Apex submit a map identifying the location of the subject well with reference to the KEL B-1. As a result, the examiners reviewed the Commission's GIS system in an attempt to verify the distance separating the subject well and the KEL B-1. Subsequently, it came to light the subject well and the KEL B-1 are separated by approximately 24.5 miles, not ten miles as testified by Apex. No subsurface mapping was presented at the hearing on behalf of Apex to identify that the injection interval from 8,550 feet to 9,550 feet, as observed in the KEL B-1, will occur at the same depth in the subject well's proposed location.

At the hearing, the examiners inquired as to what stratigraphic formation above it's proposed injection interval will provide for impervious confinement of fluids injected in its proposed injection interval<sup>3</sup> (Tr., P. 74, L. 24-25). In response, Apex testified that the Georgetown formation, followed by the Del Rio formation, sequentially occurs stratigraphically above its proposed injection interval. Beyond that, Apex testified that the Georgetown formation is a semi-confining layer and that the Del Rio formation is the primary confining layer above the Edwards formation (Tr., P. 77, L. 9-11).

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<sup>3</sup> Apex seeks to solely permit the Edwards formation as it's proposed injection interval - see Apex Exhibit No. 2, Item No. 34.

Next, the examiners inquired as to where on the KEL B-1 well log the top of the Georgetown formation (base of the Del Rio formation) is established (Tr., P. 81, L. 3-5). Apex testified that the top of the Georgetown formation occurs at 7,500 feet (Tr., P. 88, L. 1-5). That is, Apex testified that the confining formation, to the top of its proposed injection interval, occurs 1,000 feet above 8,550 feet. Accordingly, the examiners recommend that the application be denied due to lack of confinement of disposal fluids to its requested injection interval.

#### **FINDINGS OF FACT**

1. Notice of this application and hearing was provided to all persons entitled to notice. Notice of the subject application was published in the *Frio-Nueces Current*, a newspaper of general circulation in La Salle County, on September 08, 2011.
2. Notice of the application was sent to the La Salle County Clerk, surface owner of the location for the proposed disposal well, and the adjacent surface owners of each tract which adjoins the disposal tract on November 04, 2011. There were no offset operators identified within the half-mile area of review.
3. Apex Environmental Texas, LLC ("Apex") requests disposal authority pursuant to 16 TAC §3.9 to commercially dispose of waste in the proposed Apex Environmental Millet ("AEM") Lease, Well No. 1, Pearsall, East (Olmos) Field, La Salle County, Texas.
4. Apex seeks to permit the correlative interval from 8,550 feet to 9,550 feet, as seen on the log for the Hurd Enterprises, Ltd, Kone Estate Lease, Well No. B-1 ("KEL B-1") (API No. 42-127-33353), located 24 miles west of the proposed disposal well location, as the injection interval for the AEM Lease, Well No. 1.
5. Apex failed to demonstrate that fluids injected in the correlative interval from 8,550 feet to 9,550 feet, as seen on the log for the Hurd Enterprises, Ltd, Kone Estate Lease, Well No. B-1 ("KEL B-1") (API No. 42-127-33353), will be confined to the injection interval at the location of the AEM Lease, Well No. 1.
  - a. The Del Rio formation, the confining stratigraphic unit above the top of the proposed injection interval, is 1,000 feet above the top of the proposed injection interval.
  - b. No evidence was submitted supporting confinement at the base of the proposed injection interval.
  - c. Apex primarily based its geologic evidence on the KEL B-1 well log, which is located 24 miles apart from the proposed location for its AEM Lease, Well No.1.

- d. No convincing geologic evidence was submitted to indicate whether faulting occurs within the Del Rio, Georgetown, or Edwards formations between the location of the KEL B-1 and the AEM Lease, Well No.1.
6. Apex has a current approved Form P-5 (Organization Report) and no financial assurance filed with the Railroad Commission of Texas.

**CONCLUSIONS OF LAW**


1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.
2. All things necessary to give the Railroad Commission jurisdiction to consider this matter have occurred.
3. Apex has not complied with the requirements for approval set forth in 16 Texas Administrative Code §3.9.


**EXAMINERS' RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiners recommend that the application of Apex Environmental Texas, LLC, for commercial disposal authority in its Apex Environmental Millet Lease, Well No. 1, be denied, as set out in the attached Final Order.

Respectfully submitted,

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Brian Fancher, P.G.  
Technical Examiner

  
Michael Crnich  
Legal Examiner

# RAILROAD COMMISSION OF TEXAS OIL AND GAS DIVISION

Form W-14

05/2004

1096143

## APPLICATION TO DISPOSE OF OIL AND GAS WASTE BY INJECTION INTO A FORMATION NOT PRODUCTIVE OF OIL AND GAS

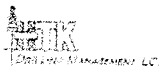
|   |                                |   |                           |
|---|--------------------------------|---|---------------------------|
| 1. Operator Name <u>Apex Environmental Texas, LLC</u>   |                                | 2. Operator P-5 No. <u>027451</u>   |                           |
| 3. Operator Address: <u>9332 Bluebonnet Blvd., Baton Rouge, LA 70810</u>  |                                |   |                           |
| 4. County <u>LaSalle</u>  |                                | 5. RRC District No. <u>01</u>   |                           |
| 6. Field Name <u>Pearsall, East (Olmos)</u> ✓   |                                | 7. Field Number <u>69982500</u>   |                           |
| 8. Lease Name <u>Apex Environmental Millett</u>   |                                | 9. Lease/Gas ID No. <u>NA</u>   |                           |
| 10. Well is <u>10.3</u> miles in a <u>NNE</u> direction from <u>Cotulla</u> (center of nearest town). 11. No. acres in lease <u>180</u>   |                                |   |                           |
| 12. Legal description of location including distance and direction from survey lines <u>1,854' FNL &amp; 1,240' FEL of J Poitevent Svy 41 A-632</u>   |                                |   |                           |
| 13. Latitude/Longitude, if known (Optional) Lat. <u>28.5850</u> Long. <u>-99.2031</u>   |                                |   |                           |
| 14. New Permit: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If no, amendment of Permit No. _____ UIC# _____   |                                |   |                           |
| 15. Reason for amendment: Pressure <input type="checkbox"/> Volume <input type="checkbox"/> Interval <input type="checkbox"/> Commercial <input type="checkbox"/> Other (explain) _____   |                                |   |                           |
| 16. Well No. <u>1</u> NA  | 17. API No. <u>283-0000</u> NA | 18. Date Drilled <u>NA</u>  | 19. Total Depth <u>NA</u> |
| 20. Plug Date, if re-entry <u>NA</u>  |                                |   |                           |
| Casing  | Size                           | Setting Depth   | Hole Size                 |
| 21. Surface   | <u>10-3/4</u>                  | <u>2,500' EST</u>   | <u>10-1/2</u>             |
| 22. Intermediate  | <u>2,400'</u>                  | <u>2,700'</u>   | <u>13 1/2</u>             |
| 23. Long String   | <u>7</u>                       | <u>9,500' EST</u>   | <u>9-7/8</u>              |
| 24. Liner   |                                |   |                           |
| 25. Other   |                                |   |                           |
| 26. Depth to base of Deepest Freshwater Zone <u>2,400' Est.</u>   |                                | 27. Multiple completion? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>  |                           |
| 28. Multistage cement? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, DV Tool Depth <u>2,700' Est.</u>   |                                | No. Sacks: <u>234</u> Top of Cement: <u>Surface</u>   |                           |
| 29. Bridge Plug Depth: <u>9,450' Est.</u>   |                                | 30. Injection Tubing Size: <u>4-1/2 in.</u> and Depth <u>8,550' Est.</u>  |                           |
|   |                                | 31. Packer Depth: <u>8,550' Est.</u>  |                           |
| 32. Cement Squeeze Operations (List all giving interval and number of sacks of cement and cement top and whether Proposed or Complete.):<br><u>NA</u>   |                                |   |                           |
| 33. Injection Interval from <u>8,550</u> to <u>9,550</u> ft.  |                                | 34. Name of Disposal Formation <u>Edwards</u>   |                           |
| 35. Any Oil and Gas Productive Zone within two miles? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/><br>If yes, Depth _____ ft. and Reservoir Name _____   |                                |   |                           |
| 36. Maximum Daily Injection Volume <u>10,000</u> bpd  |                                | 37. Estimated Average Daily Injection Volume <u>5,000</u> bpd   |                           |
| 38. Maximum Surface Injection Pressure <u>4,500 Est.</u> <u>4275 PSI</u> psig   |                                | 39. Estimated Average Surface Injection Pressure <u>3,000 Est.</u> psig   |                           |
| 40. Source of Fluids (Formation, depths and types): <u>Source of fluids from various formations, depths.</u>  |                                |   |                           |
| 41. Are fluids from leases other than lease identified in Item 8? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>   |                                | 42. Commercial Disposal Well? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>   |                           |
| 43. If commercial disposal, will non-hazardous oil and gas waste other than produced water be disposed of? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>  |                                |   |                           |
| 44. Type(s) of Injection Fluid: Salt Water <input checked="" type="checkbox"/> Brackish Water <input type="checkbox"/> Fresh Water <input type="checkbox"/> CO <sub>2</sub> <input type="checkbox"/> N <sub>2</sub> <input type="checkbox"/> Air <input type="checkbox"/> H <sub>2</sub> S <input type="checkbox"/><br>LPG <input type="checkbox"/> NORM <input type="checkbox"/> Natural Gas <input type="checkbox"/> Polymer <input type="checkbox"/> Other (explain) <u>Liquids from Waste Treatment</u> |                                |   |                           |
| <b>CERTIFICATE</b><br>I declare under penalties prescribed in Sec. 91.143, Texas Natural Resource Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that the facts stated herein are true, correct, and complete, to the best of my knowledge.<br><u>PS OK</u> <u>34377</u>  |                                | Signature <u>Mitch Killough</u> Date <u>09/29/2011</u><br>Name of Person (type or print)<br>Phone <u>281-882-8667</u> Fax <u>281-872-4521</u> |                           |
| FOR OFFICE USE ONLY   |                                | REGISTER NO. _____ AMOUNT \$ _____  |                           |

APPLICANT ALSO MUST COMPLY WITH THE INSTRUCTIONS ON THE REVERSE SIDE

O&G  
AUSTIN TX

APPLICANT'S EXHIBIT  
NO. 2



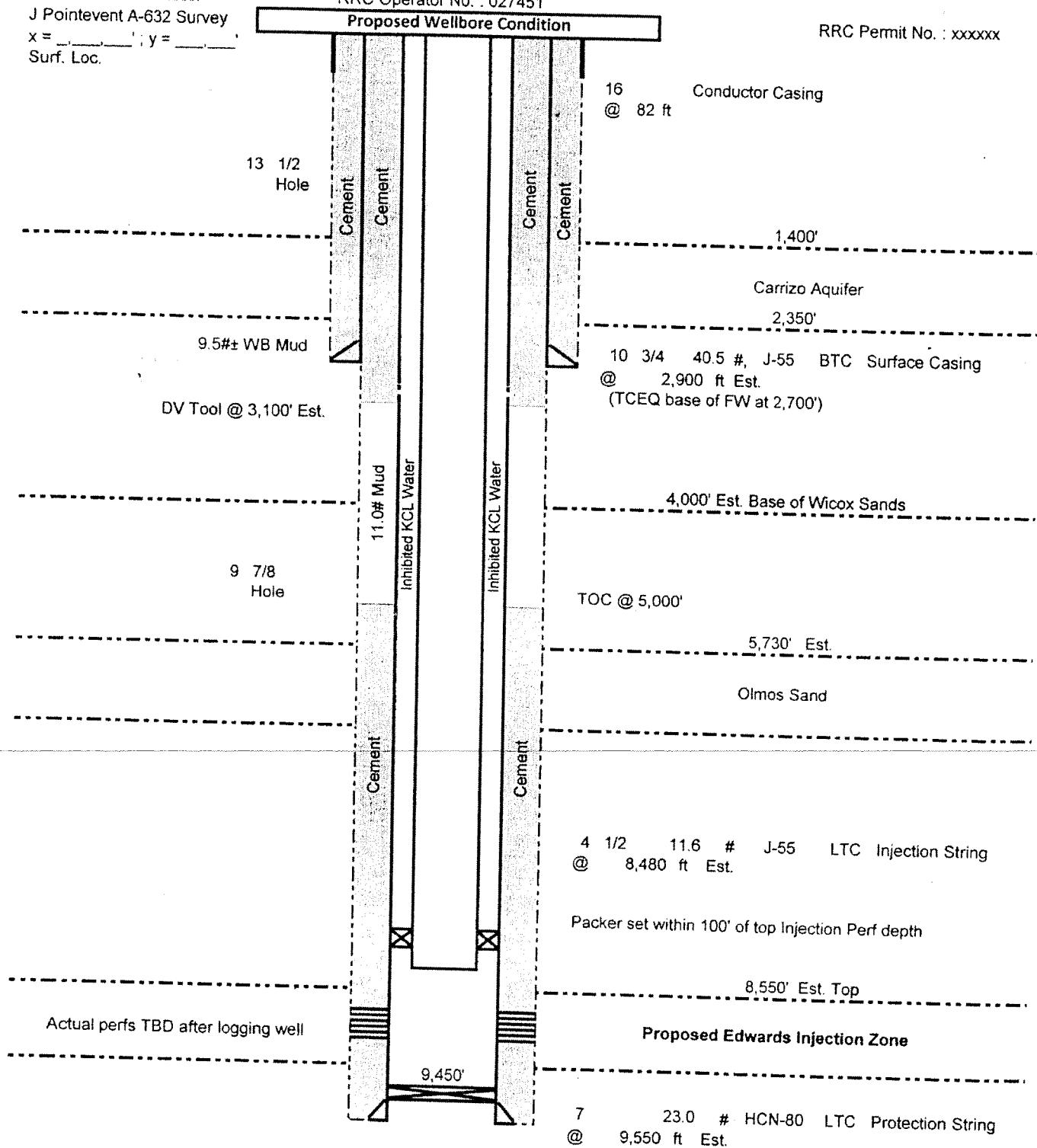


Apex Environmental Texas, LLC  
Apex Environmental - Millet No. 1 SWD  
LaSalle County, TX

API No. : 42-255-xxxxx  
J Pointevent A-632 Survey  
x = \_\_\_\_\_; y = \_\_\_\_\_  
Surf. Loc.

RRC Operator No. : 027451

RRC Permit No. : xxxxxx



by: Jeffrey R. Hughes, P.E.  
HTK Consultants, Inc.

